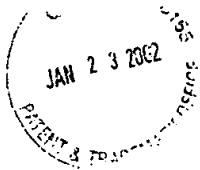


#3

**COPY OF PAPERS
ORIGINALLY FILED**



SEQUENCE LISTING

<110> Mirkin, Chad A.
Letsinger, Robert L.
Mucic, Robert C.
Storhoff, James J.
Elghanian, Robert
Taton, Thomas A.

<120> NANOPARTICLES HAVING OLIGONUCLEOTIDES ATTACHED THERETO
AND USES THEREFOR

<130> 00-713-i19

<140> 09/976,863
<141> 2001-10-12

<150> 09/603,830
<151> 2000-06-26

<150> 09/344,667
<151> 1999-06-25

<150> 09/240,755
<151> 1999-01-29

<150> PCT/US97/12783
<151> 1997-07-21

<150> 60/031,809
<151> 1996-07-29

<150> 60/200,161
<151> 2000-04-26

<160> 64

<170> Microsoft Word 2000

<210> 1
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 1
aaacgactct agcgcgata

<210> 2
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 2
 atggcaacta tacgcgctag 20

 <210> 3
 <211> 16
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 3
 ccttgagatt tccctc 16

 <210> 4
 <211> 16
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 4
 gagggaaatc tcaagg 16

 <210> 5
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 5
 aacttgcgct aatggcga 18

 <210> 6
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 6

aagttgcgct ttacggctaa tggcga 26

<210> 7
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 7
tctccttccc ttttc 15

<210> 8
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 8
gaaaaggga ggaga 15

<210> 9
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 9
cttttcctt cctct 15

<210> 10
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 10
aaacgactct agcgcgtata gttgccat 28

<210> 11
<211> 28

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 11
 atggcaacta tacgcgctag agtcgttt 28

 <210> 12
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 12
 cctatcgacc atgct 15

 <210> 13
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 13
 agcatggtcg ataggaaacg actctagcgc 30

 <210> 14
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 14
 gcgctagagt cgttt 15

 <210> 15
 <211> 30
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random

synthetic sequence

<400> 15
agcatggtcg ataggatggc aactatacgc 30

<210> 16
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 16
gtcgatagga aacgactcta gcgc 24

<210> 17
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 17
agcatggttg ataggaaacg actctagcgc 30

<210> 18
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 18
agcatgtttg ataggaaacg actctagcgc 30

<210> 19
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 19
tctcaactcg ta 12

<210> 20
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 20
cgcatcagg at

12

<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 21
tacgagttga gagagtgtccc acat

24

<210> 22
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 22
tacgagttga gaatcctgaa tgcg

24

<210> 23
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 23
tacgagttga gaatcctgaa tgct

24

<210> 24
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 24
tacgagttga gactcctgaa tgcg 24

<210> 25
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 25
tacgagttga gaatcctgaa tgc 23

<210> 26
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 26
tacgagttga gacatcctga atgcg 25

<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 27
tacgagttga gaatcctgaa tgcg 24

<210> 28
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 28
taggacttac gc 12

<210> 29
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 29
tacgagttga gaccgttaag acgaggcaat catgcaatcc tgaatgcg 48

<210> 30
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 30
tgcatgattg cctcgtctta acgg 24

<210> 31
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 31
tacgagttga gaccgttaag acgaggcaat catgcatata ttggacgctt tacggacaac 60
atcctgaatg cg 72

<210> 32
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 32
gttgctccgta aagcgtccaa tatatgcatg attgcctcgt cttaacgg 48

<210> 33
 <211> 12
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 33
 tctcaactcg ta 12

 <210> 34
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 34
 tacgagttga gaatcctgaa tgcg 24

 <210> 35
 <211> 12
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 35
 cgcattcagg at 12

 <210> 36
 <211> 141
 <212> DNA
 <213> anthrax

 <400> 36
 ggcggatgag tcagtagtta aggaggctca tagagaagta attaattcgt caacagaggg 60
 attattgtta aatattgata aggatataag aaaaatatta tccagggtta tattgtagaa 120
 attgaagata ctgaagggt t 141

 <210> 37
 <211> 15
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random

synthetic sequence

<400> 37
taacaataat ccctc 15

<210> 38
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 38
atccttatca atatt 15

<210> 39
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 39
tgagcctcct taactactga ctcacccgcc 30

<210> 40
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 40
tggtgacgaa ttaattactt ctcta 25

<210> 41
<211> 27
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 41
tataaccctg gataatattt ttcttat 27

<210> 42
 <211> 29
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 42
 aagcccttca gtatcttcaa tttctacaa 29

 <210> 43
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 43
 tctcaactcg taaaaaaaaa aa 22

 <210> 44
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 44
 tacgagttga gaatcctgaa tgcg 24

 <210> 45
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 45
 aaaaaaaaaa cgcattcagg at 22

 <210> 46
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 46
tctcaactcg taaaaaaaaa aa 22

<210> 47
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 47
aaaaaaaaaa cgcattcagg at 22

<210> 48
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 48
tacgagttga gaatcctgaa tgcg 24

<210> 49
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 49
ctacttagat ccgagtgccc acat 24

<210> 50
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 50
cgcatcagg at 12

<210> 51
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 51
aaaaaaaaa aaaaaaaaaa cgcatcagg at 32

<210> 52
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 52
cgcatcagg atwwwwwww wwwwwwww ww 32

<210> 53
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 53
atcctgaatg cg 12

<210> 54
<211> 12
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:random
synthetic sequence

<400> 54
atcctgaatg cg 12

<210> 55

<211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 55
 aaaaaaaaaa aaaaaaaaaa 20

 <210> 56
 <211> 27
 <212> DNA
 <213> Anthrax

 <400> 56
 ggattattgt taattattga taaggat 27

 <210> 57
 <211> 12
 <212> DNA
 <213> Anthrax

 <400> 57
 taacaatnat cc 12

 <210> 58
 <211> 15
 <212> DNA
 <213> Anthrax

 <400> 58
 atccttatca atatt 15

 <210> 59
 <211> 12
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 59
 tctcaactcg ta 12

 <210> 60
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 60
 tacgagttga gaatcctgaa tgcg 24

 <210> 61
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 61
 gcgtaagtcc taacgtacta acggagcaga attgccagag ttgagcat 48

 <210> 62
 <211> 72
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 62
 gcgtaagtcc tacaacaggc atttcgcagg ttatatacgt actaacggag cagaattgcc 60
 agagttgagc at 72

 <210> 63
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

 <400> 63
 tgcattgattg cctcgtctta acgg 24

 <210> 64
 <211> 48
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:random
 synthetic sequence

<400> 64

gttgccgta aagcgccaa tatatgca*g attgcctcgt cttaacgg

48